

April 8th, 2022

## KEY TAKEAWAYS

- The CDC estimates that the new BA.2 Omicron subvariant now accounts for about 68% of new cases in Virginia. We expect it to continue to out-compete BA.1. In another few weeks, BA.2 will account for almost all new cases, having displaced BA.1.
- Most health districts are still showing decline. Yet, across Virginia, case-rates are beginning to plateau. The basic reproduction number ( $R_e$ ) is now nearing one. This implies that the epidemic decline is stalling. Daily case-rates may level off in the coming weeks.
- Washington DC has plateaued at about 20 daily cases per 100,000. Virginia's other neighbors are still in slow decline. Most European nations have crested the BA.2 wave and are in decline.
- Models suggest that BA.2 may cause a minor surge in Virginia. But so far there is no sign of rapid growth in the Commonwealth.

**8 per 100k**Average Daily Cases  
Week Ending April 4th, 2022**(187 per 100k)**Adaptive Scenario  
Forecast Average Daily  
Cases, **Already Peaked**  
on Jan. 16th, 2022**782 / 866**Average Daily 1st / 2nd Doses  
March 27, 2022**1,631**Average Daily Boosters  
March 27, 2022

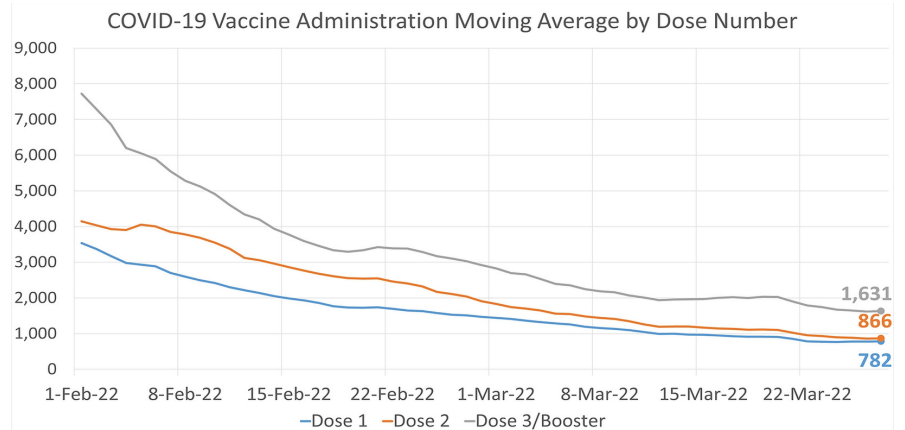
(April 3rd vaccine report delayed)

## KEY FIGURES

Reproduction Rate  
(Based on Confirmation Date)

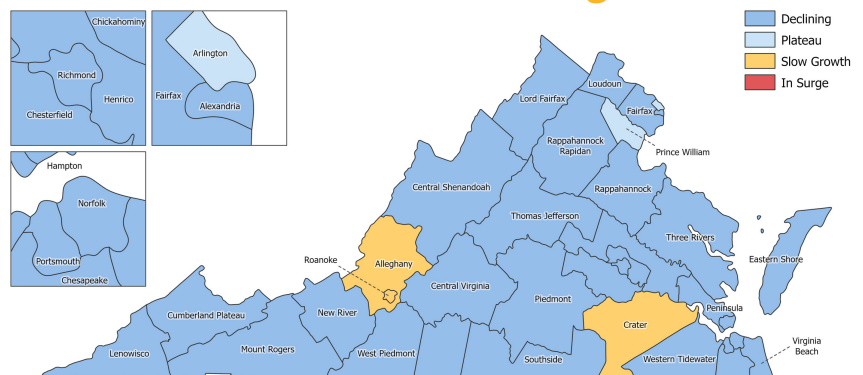
Region	$R_e$ April 4th	Weekly Change
Statewide	<b>0.980</b>	<b>0.193</b>
Central	<b>0.901</b>	<b>-0.080</b>
Eastern	<b>1.164</b>	<b>0.341</b>
Far SW	<b>0.764</b>	<b>0.237</b>
Near SW	<b>1.001</b>	<b>0.869</b>
Northern	<b>0.925</b>	<b>0.012</b>
Northwest	<b>1.051</b>	<b>0.093</b>

## Vaccine Administrations



## Growth Trajectories: 0 Health Districts in Surge

Status	# Districts (prev week)
Declining	30 (32)
Plateau	2 (0)
Slow Growth	3 (3)
In Surge	0 (0)



## THE MODEL

The UVA COVID-19 Model and weekly results are provided by the UVA Biocomplexity Institute, which has over 20 years of experience crafting and analyzing infectious disease models. It is a county-level **Susceptible, Exposed, Infected, Recovered (SEIR)** model designed to evaluate policy options and provide projections of future cases based on the current course of the pandemic. The Institute is also able to model alternative scenarios to estimate the impact of changing health behaviors and state policy.

**COVID-19 is a novel virus,  
and the variant mix  
changes periodically.  
These models improve  
as we learn more.**

## MODELING SCENARIOS

**Unchanged:** The models use various scenarios to explore the path the pandemic is likely to take under differing conditions. The [CDC now estimates](#) that the Omicron variant and its subvariants represent >99% of all new cases in Virginia. As such, we have retired all prior Delta variant-based scenarios. Current scenarios are based on the immune escape and transmission profiles of the Omicron BA.1 variant. As before, models use [COVIDcast](#) surveys to estimate county-level vaccine acceptance levels. They then assume that vaccinations increase in each county until they reach this value. Afterwards, we assume that 40% of vaccinated individuals will receive a booster at the same rate.

As always, the **"Adaptive"** scenario represents the current course of the pandemic. It assumes that there will be no major changes in interventions or transmissibility. It also does not track changes in seasonal forcing, variant proportions, or public vigilance. Rather, it is a basic projection of current trends.

The **"Adaptive-VariantBA2"** scenario adjusts for the new Omicron BA.2 subvariant's enhanced transmissibility. It assumes that BA.2 will become dominant in April and reach 95% prevalence by May. It also assumes that BA.2 is 30% more infectious than Omicron BA.1. The new **"Adaptive-VariantBA2-IncreasedControl"** scenario adds increased mitigation strategies and seasonality to the "Adaptive-VariantBA2" scenario. These include increased home testing, masking, and self-isolation when sick. This scenario is meant to model the potential public response to a near-term BA.2 related surge. It assumes that these interventions will have a 25% reduction in community transmission and start on May 1st.

## MODEL RESULTS

**Unchanged:** The current course **"Adaptive"** scenario (blue) projects a very slow decline. Case rates level off at about 4,700 per week in early May. These rates do not significantly change until late July.

The **"Adaptive-VariantBA2"** scenario (orange) shows slow but steady growth in the near term. Case rates double by May and reach 20,000 weekly cases by June. This scenario peaks in July. The **"Adaptive-VariantBA2-IncreasedControl"** (red) scenario is identical to "Adaptive-VariantBA2" until May 1st. From there, case rates decline slowly until they return to current levels in late June.

Please do your part to drive down cases. Always [practice good prevention](#) including masking in indoor public areas and self-isolating when sick. Also please [get vaccinated and boosted](#) when eligible.

